UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/727,571	12/05/2003	Kenichi Suenaga	1422-0611P	7359

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EXAMINER
MARCHESCHI, MICHAEL A

ART UNIT	PAPER NUMBER
1755	

DATE MAILED: 04/20/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

	Application No.	Applicant(s)	
Advisory Action **_Before the Filing of an Appeal Brief_**	10/727,571	SUENAGA ET AL.	
	Examiner	**Art Unit**	
	Michael A. Marcheschi	1755	

--The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

THE REPLY FILED <u>10 April 2006</u> FAILS TO PLACE THIS APPLICATION IN CONDITION FOR ALLOWANCE.

1. ☒ The reply was filed after a final rejection, but prior to or on the same day as filing a Notice of Appeal. To avoid abandonment of this application, applicant must timely file one of the following replies: (1) an amendment, affidavit, or other evidence, which places the application in condition for allowance; (2) a Notice of Appeal (with appeal fee) in compliance with 37 CFR 41.31; or (3) a Request for Continued Examination (RCE) in compliance with 37 CFR 1.114. The reply must be filed within one of the following time periods:

    a) ☒ The period for reply expires <u>4</u> months from the mailing date of the final rejection.

    b) ☐ The period for reply expires on: (1) the mailing date of this Advisory Action, or (2) the date set forth in the final rejection, whichever is later. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of the final rejection.

    Examiner Note: If box 1 is checked, check either box (a) or (b). ONLY CHECK BOX (b) WHEN THE FIRST REPLY WAS FILED WITHIN TWO MONTHS OF THE FINAL REJECTION. See MPEP 706.07(f).

Extensions of time may be obtained under 37 CFR 1.136(a). The date on which the petition under 37 CFR 1.136(a) and the appropriate extension fee have been filed is the date for purposes of determining the period of extension and the corresponding amount of the fee. The appropriate extension fee under 37 CFR 1.17(a) is calculated from: (1) the expiration date of the shortened statutory period for reply originally set in the final Office action; or (2) as set forth in (b) above, if checked. Any reply received by the Office later than three months after the mailing date of the final rejection, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

<u>NOTICE OF APPEAL</u>

2. ☐ The Notice of Appeal was filed on _____. A brief in compliance with 37 CFR 41.37 must be filed within two months of the date of filing the Notice of Appeal (37 CFR 41.37(a)), or any extension thereof (37 CFR 41.37(e)), to avoid dismissal of the appeal. Since a Notice of Appeal has been filed, any reply must be filed within the time period set forth in 37 CFR 41.37(a).

<u>AMENDMENTS</u>

3. ☐ The proposed amendment(s) filed after a final rejection, but prior to the date of filing a brief, will <u>not</u> be entered because

    (a) ☐ They raise new issues that would require further consideration and/or search (see NOTE below);

    (b) ☐ They raise the issue of new matter (see NOTE below);

    (c) ☐ They are not deemed to place the application in better form for appeal by materially reducing or simplifying the issues for appeal; and/or

    (d) ☐ They present additional claims without canceling a corresponding number of finally rejected claims.

    NOTE: _____. (See 37 CFR 1.116 and 41.33(a)).

4. ☐ The amendments are not in compliance with 37 CFR 1.121. See attached Notice of Non-Compliant Amendment (PTOL-324).

5. ☐ Applicant's reply has overcome the following rejection(s): _____.

6. ☐ Newly proposed or amended claim(s) _____ would be allowable if submitted in a separate, timely filed amendment canceling the non-allowable claim(s). *no amendment presented*

7. ☒ For purposes of appeal, ~~the proposed amendment(s): a) ☐ will not be entered, or b) ☐ will be entered~~ and an explanation of how the new or amended claims would be rejected is provided below or appended.
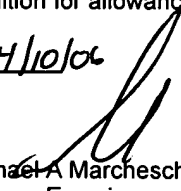
    The status of the claim(s) is (or will be) as follows:

    Claim(s) allowed: _____.

    Claim(s) objected to: _____.

    Claim(s) rejected: <u>*1-8, 21*</u>.

    Claim(s) withdrawn from consideration: <u>*9-20*</u>.

<u>AFFIDAVIT OR OTHER EVIDENCE</u>

8. ☐ The affidavit or other evidence filed after a final action, but before or on the date of filing a Notice of Appeal will <u>not</u> be entered because applicant failed to provide a showing of good and sufficient reasons why the affidavit or other evidence is necessary and was not earlier presented. See 37 CFR 1.116(e).

9. ☐ The affidavit or other evidence filed after the date of filing a Notice of Appeal, but prior to the date of filing a brief, will <u>not</u> be entered because the affidavit or other evidence failed to overcome <u>all</u> rejections under appeal and/or appellant fails to provide a showing a good and sufficient reasons why it is necessary and was not earlier presented. See 37 CFR 41.33(d)(1).

10. ☒ The affidavit or other evidence is entered. An explanation of the status of the claims after entry is below or attached.

<u>REQUEST FOR RECONSIDERATION/OTHER</u>

11. ☒ The request for reconsideration has been considered but does NOT place the application in condition for allowance because: <u>see attached.</u>

12. ☒ Note the attached Information Disclosure Statement(s). (PTO/SB/08 or PTO-1449) Paper No(s). *4/10/06*

13. ☐ Other: _____.

Michael A Marcheschi
Primary Examiner
Art Unit: 1755

ATTACHMENT TO ADVISORY ACTION:

Applicants argue that Koichi et al. teaches in embodiments 1 and 2 a favorable D10 value and a favorable percentage of sizes less than 40 nm. The examiner acknowledges these teachings but these teaching are the preferred embodiments, and as is well known, a reference can be used for all it realistically teaches and is not limited to the disclosure in its preferred embodiments See *In re Van Marter*, **144 USPQ 421.** Applicants also refer to the examples of the reference but a reference is not limited to only the examples. Applicants state that it can be reasonably "presumed" that the examples do not meet the claimed formulas (1) and (5). This statement is based on the examples of the reference and a reference is not limited to only the examples. In addition, a statement of "presumption" is not a persuasive argument absent specific results to support this argument. Applicants also argue that the distribution defined in the reference is on a number basis and it can not be directly compared with a distribution on a volume percent. The examiner is unclear as to this argument because the size distribution of the reference must contain a volume of sizes and burden is upon applicants to show clear evidence as to why the distribution of the reference would not constitute particles in the claimed volume relationship. Applicants submit a declaration (filed with the response) to establish that the cumulative particle size distribution based on a **number** basis can not be readily translated into a cumulative particle size distribution based on a **volume** basis because the volume basis is based on the sizes of the entire particles. The examiner acknowledges this declaration, as the correlation between and number basis and a volume basis cannot be readily translated due to various factors, such as size, as well as density (density factor not literally defined in declaration). The declaration, however, is insufficient to overcome the previous rejections

because in formula (1) and (5) of the claims, the variables are not sufficiently defined so as to

preclude the determination of what "V" or "R" are in said formulas. In other words, the

formulas fail to define what "R" is thus, without this variable, one cannot readily determine what

"V" is. In addition, "V", which is defined by as cumulative volume frequency (this is a %) is a

dimensionless variable, thus since R is a size (in nm), a dimensionless variable (V) cannot be

readily obtained from a non dimensionless formula, such as, formula (1) "0.5 x R (nm) + 40" and

formula (5) "R (nm) + 50". In addition, as can be seen from the formulas, assuming R is

defined, the calculated value will be in nm and thus is not a volume frequency (%) i.e. "V" is not

dimensionless. In as much as the examiner cannot readily determine the metes and bounds of the

formulas defined in the instant claims, it would appear from instant figure 1 that the volume

frequency (up to 80%-see curve for example 6 in figure 1) of the particles of the invention lie

between about 27-55 nm. The reference literally discloses a d10 value of 30 nm, a d50 value of

40 nm and a d90/d50 ratio of 1.3 (thus a calculated d90 value 52 nm). From this, it can be seen

that most of the particles fall with a size of 35-52 nm and since a volume frequency must be

associated with the particles, it is the examiners position that this still reads on the claims.

Applicants have not clearly shown evidence otherwise. In summary, (1) without any specific

comparative evidence between the claimed invention and that of the reference and (2) a clear

indication of what the claimed formulas are defining, applicants formulas (1) and (5) are not seen

to define a patentable invention over the reference. Referring back to the favorable aspect

argued and addressed above, applicants state that this favorability is opposite to features of the

instant claims. As defined above, the reference is not limited to this favorability, as argued. In
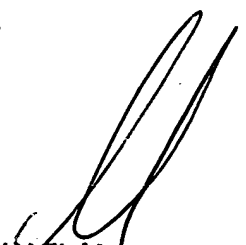
addition, the claimed formulas, as defined, do not clearly depict the feature argued (majority of particles less than 40 nm).

It is the examiners position that from the data of the percentages for the D10 value (column 5, lines 1-5) coupled with percentages for the D50 and D90 (column 4, lines 32-41), as well as, figures 5-6, volume percents can be determined (depending on the size and density of the silica used), and this appears to encompass the claimed values. Applicants have not provided any clear evidence establishing that the claimed volume relationship is patentable over this reference. Finally, the distribution of the reference must have some volume associated therewith and applicants have not shown clear evidence as to why the distribution of the reference will not meet the claimed formula.

Applicants argue that the distribution defined in Ota et al. is on a number basis and it can not be directly compared with a distribution on a volume percent. The examiner is unclear as to this argument because the size distribution of the reference must contain a volume of sizes and burden is upon applicants to show clear evidence as to why the distribution of the reference would not constitute particles in the claimed volume relationship. It is the examiners position that from the data of the percentages for the individual silica's, volume percents can be determined (colloidal silica of the reference would appear to be the same in density), and this appears to encompass the claimed values. Applicants have not provided any clear evidence establishing that the claimed volume relationship is patentable over **this reference** (no comparison between the reference and the claimed invention). Applicants also appear to argue the examples (preferred embodiments) of this reference, but as is well known, a reference can be used for all it realistically teaches and is not limited to the disclosure in its preferred

embodiments **See *In re Van Marter*, 144 USPQ 421.** Finally, applicants state that the instant

specification (i.e. table 4) establishes unexpected results over this reference. The examiner

acknowledges these results, however, any evidence provided is not commensurate in scope with

the claims. The claims are much broader in scope that that defined in the tables. Evidence of

unexpected results must be clear and convincing. *In re Lohr* 137 USPQ 548. Evidence of

unexpected results must be commensurate in scope with the subject matter claimed. *In re Linder*

173 USPQ 356. Finally, the distribution of the reference must have some volume associated

therewith and applicants have not shown clear evidence as to why the distribution of the

reference will not meet the claimed formulas. Applicants also argue this reference in view of the

declaration submitted. The examiner commented on this above and the same remarks are hereby

incorporated herein by reference. As a further comment to applicants argument with respect to

the declaration, applicants appear to argue that in this reference, the particle size for a portion of

the particles is unknown. The examiner disagrees because the reference clearly teaches sizes for

all of the particles. Finally, the examiners comments with respect to the claimed formulas above

(determination of "V" and "R") are hereby incorporated by reference.

MICHAEL MARCHESCHI
PRIMARY EXAMINER